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TECHNICAL INSPECTION REPORT

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By James H. Dwyer Date 29 SEP 1953

(6) OPERATION CROSSROADS,
U.S.S. YOG83,
TEST BAKER ⁽⁸⁾ CUJ.

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Director
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Washington, D. C. 20301

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OPERATION CROSSROADS

DIRECTOR OF SHIP MATERIAL
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GROUP-3
Downgraded at 12-year intervals;
Not automatically declassified.
1 JAN 1965

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TECHNICAL INSPECTION REPORT**

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APPROVED:

**F.X. Forest,
Captain, U.S.N.**

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USS YOG 83

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USS YOG 83

TECHNICAL INSPECTION REPORT

OVERALL SUMMARY

I. Target Condition After Test.

(a) Drafts after test, general areas of flooding, sources.

There was no flooding, hence no change in drafts or list.

(b) Structural damage.

HULL

No damage.

MACHINERY

No comment.

ELECTRICAL

Not observed.

(c) Other damage.

HULL

Not observed.

MACHINERY

Machinery was not inspected, as radioactivity after Test B limited the time personnel could remain aboard YOG 83 to less than 15 minutes per day. A very cursory examination disclosed no apparent damage to machinery. She was sunk by demolition charge after Test B.

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ELECTRICAL

Due to the intense radioactivity this vessel was not inspected by the Electrical Group. The Hull Group inspection report indicates no apparent structural damage. The lack of apparent structural damage indicates that electrically the vessel is in essentially the same condition as before Test B.

II. Forces evidenced and effects noted.

(a) Heat.

HULL

None.

MACHINERY

No evidence.

ELECTRICAL

Evidence of heat, if any, was not observed as inspection was not made.

(b) Fires and Explosions.

HULL

None.

MACHINERY

No evidence.

ELECTRICAL

Not observed.

(c) Shock.

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HULL

None.

MACHINERY

No evidence from very cursory inspection. See

I (c) above.

ELECTRICAL

Evidence of shock, if any, was not observed as no inspection was made by this group.

(d) Pressure.

HULL

None.

MACHINERY

No evidence from very cursory inspection. See

I (c) above.

ELECTRICAL

Evidence of pressure, if any existed, was not noted as no inspection was made.

(e) Effects peculiar to the Atom Bomb.

HULL

None.

MACHINERY

High radioactivity.

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ELECTRICAL

It being impractical to inspect this vessel after Test B the only known effects apparently peculiar to the Atom bomb was the intense radioactivity.

III. Results of Test on Target.

(a) Effect on machinery, electrical, and ship control.

HULL

Not observed.

MACHINERY

Unknown. See I (c) above. Believed to have been none except for radioactivity.

ELECTRICAL

Not known.

(b) Effect on gunnery and fire control.

HULL

Not observed.

MACHINERY

No comment.

ELECTRICAL

Not known.

(c) Effect on watertight integrity and stability.

HULL

None.

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MACHINERY

No comment.

ELECTRICAL

Not known.

(d) Effect on personnel and habitability.

HULL

None, except for radioactivity which rendered the barge uninhabitable.

MACHINERY

The craft was made uninhabitable by radioactivity. All personnel would probably have been casualties either from direct effects of the explosion or from radioactivity.

ELECTRICAL

The only known effect on personnel and habitability would have been that due to the intense radioactivity. It is considered this would have been great.

(e) Effect on fighting efficiency.

HULL

Efficiency of the barge was unaffected structurally or mechanically.

MACHINERY

High radioactivity destroyed the usefulness of the craft.

ELECTRICAL

Not known.

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IV. General Summary of Observer's Impressions and Conclusions.

HULL

No comment.

MACHINERY

YOG 83 is an outstanding example of the seriousness of the radiological aspects of this form of attack.

ELECTRICAL

None.

V. Preliminary General or Specific Recommendations of Inspection Group.

HULL

None.

MACHINERY

None.

ELECTRICAL

None.

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USS YOG83

TECHNICAL INSPECTION REPORT

SECTION I - HULL

GENERAL SUMMARY OF HULL DAMAGE

I. Target Condition After Test.

- (a) Drafts after test; lists; general areas of flooding, sources.

list. There was no flooding, hence no change in drafts or

- (b) Structural damage.

No damage.

- (c) Other damage.

Not observed.

II. Forces Evidenced and Effects Noted.

- (a) Heat.

None.

- (b) Fires and explosions.

None.

- (c) Shock.

None.

- (d) Pressure.

None.

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- (e) Effects peculiar to the Atomic Bomb.

None.

III. Results of Test on Target.

- (a) Effect on machinery, electrical, and ship control.

Not observed.

- (b) Effect on gunnery and fire control.

Not observed.

- (c) Effect on watertight integrity and stability.

None.

- (d) Effect on personnel and habitability.

None, except for radioactivity which rendered the barge uninhabitable.

- (e) Effect on fighting efficiency.

Efficiency of the barge was unaffected structurally or mechanically.

IV. General Summary of Observers Impressions and Conclusions.

No comment.

V. Preliminary Recommendation.

None.

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VI. Instructions for Loading the Vessel Specified the Following:

ITEM	LOADING
Fuel oil. Diesel oil. Ammunition. Potable and reserve feed water. Salt water ballast.	No special adjustment re- quired. Except that no in- flammable cargo shall be carried in tanks. Tanks may be ballasted with salt water to adjust trim, immersion and list.

Details of the actual quantities of the various items aboard are included in report 7, Stability Inspection Report, submitted by the ship's force in accordance with "Instructions to Target Vessels for Test and Observations by Ship's Force" issued by the Director of Ships Material. This report is available for inspection in the Bureau of Ships Crossroads Files.

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DETAILED DESCRIPTION OF HULL DAMAGE

A. General Description of Hull Damage.

No damage.

B. Superstructure.

No damage.

C. Turrets, Guns and Directors.

No damage.

D. Torpedo Mounts, Depth Charge Gear.

Not applicable.

E. Weather Deck.

No damage.

F. Exterior Hull.

No damage.

G. Interior Compartments (Above W.L.).

No damage.

H. Armor Decks and Miscellaneous Armor.

Not applicable.

I. Interior Compartments (Below W.L.).

No damage.

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J. Underwater Hull.

No damage.

K. Tanks.

No damage.

L. Flooding.

None.

M. Ventilation.

No damage.

N. Ship Control.

No damage.

O. Fire Control.

No damage.

P. Ammunition Behavior.

No damage.

Q. Ammunition Handling.

Not applicable.

R. Strength.

No damage.

S. Miscellaneous.

No comment.

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TECHNICAL INSPECTION REPORT

SECTION II - MACHINERY

GENERAL SUMMARY OF MACHINERY DAMAGE

I. Target Condition After Test.

- (a) Drafts after test; list; general areas of flooding, sources.

No comment.

- (b) Structural damage.

No comment.

- (c) Other damage.

Machinery was not inspected, as radioactivity after Test "B" limited the time personnel could remain aboard YOG 83 to less than 15 minutes per day. A very cursory examination disclosed no apparent damage to machinery. She was sunk by demolition charge after Test "B".

II. Forces Evidenced and Effects Noted.

- (a) Heat.

No evidence.

- (b) Fires and explosions.

No evidence.

- (c) Shock.

No evidence from very cursory inspection. See I (c)

above.

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(d) Pressure.

No evidence from very cursory inspection. See I (c) above.

(e) Any effects apparently peculiar to the Atom Bomb.

High radioactivity.

III. Effects of Damage.

(a) Effect on machinery and ship control.

Unknown. See I (c) above. Believed to have been none except for radioactivity.

(b) Effect on gunnery and fire control.

No comment.

(c) Effect on water-tight integrity and stability.

No comment.

(d) Effect on personnel and habitability.

The craft was made uninhabitable by radioactivity. All personnel would probably have been casualties either from direct effects of the explosion or from radioactivity.

(e) Total effect on fighting efficiency.

High radioactivity destroyed the usefulness of the craft.

77. General Summary (Not over 6-8 lines) of Observers' Impressions and Conclusions.

YOG 83 is an outstanding example of the seriousness of the radiological aspects of this form of attack.

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**V. Any Preliminary General or Specific Recommendations of the
Inspecting Group.**

None.

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DETAILED DESCRIPTION OF MACHINERY DAMAGE

NOTE: The only items discussed below are those where damage occurred. All items omitted either received no damage or are not applicable.

There was no damage.

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TECHNICAL INSPECTION REPORT

SECTION III - ELECTRICAL

GENERAL SUMMARY OF ELECTRICAL DAMAGE

I. Target Condition After Test.

- (a) Drafts after test; list; general areas of flooding, sources.

Drafts or list were not observed.

- (b) Structural damage.

Not observed.

- (c) Other damage.

Due to the intense radioactivity this vessel was not inspected by the Electrical Group. The Hull Group inspection report indicates no apparent structural damage. The lack of apparent structural damage indicates that electrically the vessel is in essentially the same condition as before Test "B".

II. Forces Evidenced and Effects Noted.

- (a) Heat.

Evidence of heat, if any, was not observed as inspection was not made.

- (b) Fires and explosions.

Not observed.

- (c) Shock.

Evidence of shock, if any, was not observed as no inspection was made by this group.

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(d) Pressure.

Evidence of pressure, if any existed, was not noted as no inspection was made.

(e) Effects apparently peculiar to the Atomic Bomb.

It being impractical to inspect this vessel after Test "B" the only known effects apparently peculiar to the Atom Bomb was the intense radioactivity.

III. Effects of Damage.

(a) Effect on electrical equipment and ship control.

Not known.

(b) Effect on gunnery and fire control.

Not known.

(c) Effect on water-tight integrity and stability.

Not known.

(d) Effect on personnel and habitability.

The only known effect on personnel and habitability would have been that due to the intense radioactivity. It is considered this would have been great.

(e) Total effect on fighting efficiency.

Not known.

IV. General Summary of Observer's Impressions and Conclusions.

None.

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V. Any Preliminary, General or Specific Recommendations of the Inspection Group.

None.

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DETAILED DESCRIPTION OF ELECTRICAL DAMAGE

NOTE: The only items discussed below are those where damage occurred. All items omitted either received no damage or are not applicable.

There was no inspection made.

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SECTION IV

PHOTOGRAPHS

TEST BAKER

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USS YOG 83



AB-CR-227-283-26. View from starboard bow after Test B.

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AB-CR-227-230. View from port quarter after Test B.

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YOG-8.

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Defense Special Weapons Agency
6801 Telegraph Road
Alexandria, Virginia 22310-3398

TRC

18 April 1997

MEMORANDUM FOR DEFENSE TECHNICAL INFORMATION CENTER
ATTENTION: OMI/Mr. William Bush (Security)

SUBJECT: Declassification of Reports

The Defense Special Weapons Agency has declassified the following reports:

/✓AD-366588 4	XRD-203-Section 12 ✓
x ——— AD-366589 ✓	XRD-200-Section 9 ✓
AD-366590 ✓	XRD-204-Section 13 ✓
AD-366591 ✓	XRD-183 ✓
/✓AD-366586 ✕	XRD-201-Section 10 ✓
/✓AD-367487 ✓	XRD-131-Volume 2 ✓
/✓AD-367516 4	XRD-143 ✓
/✓AD-367493 ✓	XRD-142 ✓
AD-801410L ✓	XRD-138 ✓
AD-376831L ✓	XRD-83 ✓
AD-366759 ✓	XRD-80 ✓
/✓AD-376830L ✕	XRD-79 ✓
/✓AD-376828L ✓	XRD-76 ✓
/✓AD-367464 ✕	XRD-106 ✓
AD-801404L ✓	XRD-105-Volume 1 ✓
/✓AD-367459 ✕	XRD-100 ✓

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18 April 1997

Subject: Declassification of Reports

✓AD-367491 X	XRD-134-Volume 2 ✓
✓AD-367479 H	XRD-123 ✓
✓AD-367478 X	XRD-122 ✓
✓AD-367481 X	XRD-125 ✓
AD-367500 V	XRD-159-Volume
✓AD-367499 X	XRD-160-Volume 3 ✓
✓AD-367498 X	XRD-161-Volume 4 ✓
AD-367512 ✓	XRD-147 ✓
AD-367511 ✓	XRD-148 ✓
✓AD-367465 X	XRD-107 ✓
AD-366733 ✓	XRD-43 ✓
✓AD-367477 X	XRD-121 ✓
✓AD-367476 H	XRD-120 ✓
✓AD-367467 X	XRD-109-Volume 1 ✓
✓AD-367475 X	XRD-119 ✓
✓AD-367474 X	XRD-118 ✓
✓AD-367473 X	XRD-117 ✓
✓AD-367472 X	XRD-116 ✓
✓AD-367471 X	XRD-115 ✓
✓AD-367466 X	XRD-108 ✓
AD-801405L ✓	XRD-113 ✓
✓AD-367470 X	XRD-112 ✓
✓AD-367469 X	XRD-111 ✓

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18 April 1997

Subject: Declassification of Reports

AD-801406L ✓ XRD-114✓

In addition, all of the cited reports are now **approved for public release; distribution statement "A" now applies.**

Arldith Jarrett
ARDITH JARRETT
Chief, Technical Resource Center